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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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08/16/2001

Hiroaki Muroya

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08/26/2004

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EXAMINER

SEFER, AHMED N

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. **09/931,343**

Applicant(s)

MUROYA, HIROAKI

Examiner

A. Sefer

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3 and 5-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed June 7, 2004 have been fully considered but they are not persuasive.
2. Applicant argues that Yotsuya et al. ("Yotsuya") USPN 6,469,832 does not teach all the elements either explicitly or inherently. Furthermore, Applicant argues that Hamanaka ("Hamanaka") USPN 6,031,591 in view of Zimmerman et al. ("Zimmerman") USPN 5,598,281 do not teach or fairly suggest Applicant's invention. Specifically, Applicant argues that the references of record do not disclose forming microlens in the UV reactive resin after the TFT and counter substrates have been formed and attached.
3. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., forming microlens in the UV reactive resin after the TFT and counter substrates have been formed and attached.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamanaka in view of Zimmerman.

Hamanaka discloses in figs. 2-6 a method of producing micro-lenses, including the steps of: providing a plurality of pixel electrodes 23 secured to a first light transmitting substrate 21; providing counter electrodes 25 secured to a second light transmitting substrate 14; providing a light blocking layer 24 having apertures corresponding to said pixel electrodes between said first and second substrates; bonding peripheries of said first and second substrates so that said pixel electrodes and said counter electrodes face each other with a clearance therebetween; and providing a focusing layer comprising a photosensitive material 12 that is secured to said second substrate on a side that is opposite the surface having said counter electrode, but do not specifically disclose the method of providing said micro-lenses.

Zimmerman discloses (see fig. 15, col. 10, lines 40-62, col. 13, lines 23-32 and the par. bridging cols. 13 and 14) a method of providing a focusing layer 114 comprising a photosensitive material that is secured to a substrate; irradiating light from another substrate side through the apertures of a light blocking layer 108 to expose and cure the portions of a focusing layer; and removing uncured portions of said focusing layer.

Therefore, it would have been obvious to one skilled in the art at time the invention was made to incorporate Zimmerman's teachings with Hamanaka's device since that would provide an energy efficient device.

As for claims 2 and 3, Zimmerman discloses a step of irradiating light including a step of substantially parallel beams of light or at least two beams having angles offset with respect to a normal direction perpendicular to the surface of a first substrate.

As for claim 5, Hamanaka discloses a step of providing said focusing layer comprising of an ultraviolet curing resin and, a step of irradiating light from said first substrate side, is a step of irradiating ultraviolet light.

As for claim 6, Hamanaka discloses a step of injecting a substance having an electro-optic effect into the clearance between the pixel electrodes and counter electrodes to form electro-optic layer.

As for claim 7, Hamanaka discloses a step of injecting a liquid crystal composition as said substance to form a liquid crystal layer.

As for claim 8, Hamanaka discloses a step of injecting a substance having an electro-optic effect into the clearance between the pixel electrodes and counter electrodes to form electro-optic layer.

As for claim 9, Hamanaka discloses a step of injecting a liquid crystal composition as said substance to form a liquid crystal layer.

6. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamanaka in view of Zimmerman.

Hamanaka discloses in figs. 2-6 method of producing an image display device, including the steps of: providing a plurality of pixel electrodes 23 on a first light transmitting type substrate and providing a plurality of switching elements 24 connected to corresponding ones of the pixel electrodes; providing counter electrodes 25 on a second light transmitting type substrate 14; providing a light blocking layer 24 between said first substrate and said second substrate wherein the a light blocking layer has apertures at least at portions corresponding to said pixel electrodes; bonding peripheries of said first and second substrates so that said pixel electrodes

and said counter electrodes face each other with a clearance therebetween; and providing a focusing layer comprising a photosensitive material 12 that is secured to said second substrate on a side that is opposite the surface having said counter electrode, but do not specifically disclose the method of providing said micro-lenses.

Zimmerman discloses (see fig. 15, col. 10, lines 40-62, col. 13, lines 23-32 and the par. bridging cols. 13 and 14) a method of providing a focusing layer 114 comprising a photosensitive material that is secured to a substrate; irradiating light from another substrate side through the apertures of a light blocking layer 108 to expose and cure the portions of a focusing layer; and removing uncured portions of said focusing layer.

Therefore, it would have been obvious to one skilled in the art at time the invention was made to incorporate Zimmerman's teachings with Hamanaka's device since that would provide an energy efficient device.

As for claims 11 and 12, Zimmerman discloses (see col. 10, lines 40-62) a step of irradiating light including a step of substantially parallel beams of light or at least two beams having angles offset with respect to a normal direction perpendicular to the surface of a first substrate.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2826

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (571) 272-1921.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915.

NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANS
August 16, 2004